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# **Btk Rabbit pAb**

CatalogNo: YT5346 Orthogonal Validated 💽

### **Key Features**

Host Species • Rabbit	Reactivity <ul> <li>Human,Mouse,Rat</li> </ul>	Applications <ul> <li>WB,IHC,IF,ELISA</li> </ul>
MW • 76kD (Observed)	Isotype • IgG	

#### **Recommended Dilution Ratios**

WB 1:500-1:2000 IHC 1:100-1:300 ELISA 1:20000 IF 1:50-200

#### **Storage**

Storage\*-15°C to -25°C/1 year(Do not lower than -25°C)FormulationLiquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

#### **Basic Information**

Clonality Polyclonal

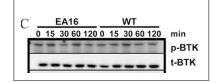
#### Immunogen Information

Immunogen Synthesized peptide derived from Btk . at AA range: 490-570

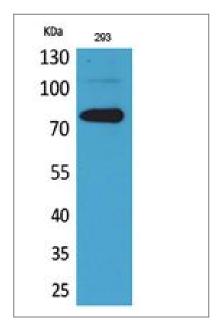
**Specificity** Btk Polyclonal Antibody detects endogenous levels of Btk protein only when non-phosphorylation at Y550.

Gene name	ВТК		
Protein Name	Tyrosine-protein kinase BTK <b>Organism</b>	Gene ID	UniProt ID
	Human	<u>695;</u>	<u>Q06187;</u>
	Mouse	<u>12229;</u>	<u>P35991;</u>
Cellular Localization	Cytoplasm. Cell membrane; Peripheral membrane protein. Nucleus. In steady state, BTK is predominantly cytosolic. Following B-cell receptor (BCR) engagement by antigen, translocates to the plasma membrane through its PH domain. Plasma membrane localization is a critical step in the activation of BTK. A fraction of BTK also shuttles between the nucleus and the cytoplasm, and nuclear export is mediated by the nuclear export receptor CRM1.		
Tissue specificity	Predominantly expressed in B-lymphocytes.		
Function	Predominantly expressed in B-lymphocytes. Catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,cofactor:Binds 1 zinc ion per subunit.,Disease:Defects in BTK are the cause of X- linked agammaglobulinemia (XLA) [MIM:300755]; also called X-linked agammaglobulinemia type 1 (AGMX1) or immunodeficiency type 1 (IMD1). XLA is a humoral immunodeficiency disease which results in developmental defects in the maturation pathway of B-cells. Affected boys have normal levels of pre-B-cells in their bone marrow but virtually no circulating mature B-lymphocytes. This results in a lack of immunoglobulins of all classes and leads to recurrent bacterial infections like otitis, conjunctivitis, dermatitis, sinusitis in the first few years of life, or even some patients present overwhelming sepsis or meningitis, resulting in death in a few hours. Treatment in most cases is by infusion of intravenous immunoglobulin.,Disease:Defects in BTK may be the cause of X-linked hypogammaglobulinemia and isolated growth hormone deficiency (XLA-IGHD) [MIM:307200]; also known as agammaglobulinemia and isolated growth hormone deficiency or Fleisher syndrome or isolated growth hormone deficiency (IGHD).,enzyme regulation:Inhibited by IBTK. Activated by phosphorylation.,Function:Plays a crucial role in B-cell ontogeny. Transiently phosphorylates GTF2I on tyrosine residues in response to B-cell receptor cross-linking. Required for the formation of functional ARID3A DNA-binding complexes.,online information:BTK mutation db,PTM:Autophosphorylated on Tyr-223 and Tyr-551. Phosphorylation of Tyr-223 may create a docking site for a SH2 containing protein.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family.,similarity:Contains 1 Btk-type zinc finger.,similarity:Contains 1 PH domain.,similarity:Contains 1 Btk-type zinc finger.,similarity:Contains 1 SH2 domain.,similarity:Contains 1 Btk-type zinc finger.,similarity:Contains 1 SH2 domain.,similarity:Contains 1 SH3 domain.,s		

# Validation Data



Yang, Chunhui, et al. "Non-classical MHC IE negatively regulates macrophage activation and Th17 cell development in NOD mice." Scientific reports 5 (2015): 12941.



Western Blot analysis of 293 cells using Btk Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000

## **Contact information**

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Please scan the QR code to access additional product information: **Btk Rabbit pAb** 

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